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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,303	04/14/2004	Michael Monasterio	31964-0007	5969

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EXAMINER

KAWSAR, ABDULLAH AL

ART UNIT	PAPER NUMBER
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2195

NOTIFICATION DATE	DELIVERY MODE
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08/18/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/824,303	Applicant(s) MONASTERIO, MICHAEL	
	Examiner ABDULLAH AL KAWSAR	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14 and 17-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-14 and 17-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-2, 4-14, 17-43 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 6-8, 17, 21, 40 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Austin(Austin) US Patent Publication No. 2003/0126184.

4. Reference Austin was cited in IDS submitted on 10/01/2004.

5. As per claim 6, Austin teaches the invention as claimed including a computerized method for throttling a delinquent process that occupies more than a predetermined threshold percentage of central processing unit(CPU) resources(par. 0015), the method comprising:

determining whether a process is delinquent for occupying more than the predetermined threshold percentage of CPU resources (par. 0006; par. 0031);

monitoring the delinquent process determined to be delinquent for a fixed time period (par. 0058);

suspending the delinquent process for a variable time period to initiate throttling of the delinquent process (par. 0039, par. 0041; par. 0056; par. 0066); and

resuming the delinquent process to complete throttling of the delinquent process (par. 0066, lines 18-25).

6. As per claim 7, Austin teaches throttling an object if the object comprises the delinquent process (par. 0033; par. 0043).

7. As per claim 8, Austin teaches determining whether the delinquent process is still delinquent after throttling by comparing CPU resource usage after throttling to the predetermined threshold percentage (par. 0066).

8. As per claim 17, Austin teaches the predetermined threshold percentage of CPU resources is selected by an administrator (par. 0056; par. 0057).

9. As per claim 21, Austin teaches wherein the method is performed on at least one of a terminal server, a Windows server, a non-terminal server, a desktop PC, a laptop, and a handheld computing device (par. 0002).

10. As per claim 40, Austin teaches the invention as claimed including a system having a processor for managing central processing unit(CPU) resources(par. 0015), comprising:

means for determining whether a process is delinquent for occupying CPU resources above a selectable predetermined percentage of CPU resources (par. 0006; par. 0031);

means for monitoring the process determined to be delinquent (par. 0006);

means for suspending the delinquent process for a variable period of time (par. 0039, par. 0041; par. 0056; par. 0066); and

means for determining whether the process is still delinquent after suspension (par. 0066, lines 18-25).

11. As per claim 42. Austin teaches means to exempt at least one of a process, an object, and a specified user, from CPU throttling (par. 0042).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-2 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austin(Austin) US Patent Publication No. 2003/0126184, in view of Ma(Ma) US Patent Publication No. 2003/0217296.

14. Reference Ma was cited in IDS submitted on 10/01/2004.

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15. As per claim 1, Austin teaches the invention substantially as claimed including a system having a processor for managing central processing unit (CPU) resources in a computing device (par. 0015), the system comprising:

a control component configured to analyze information associated with CPU resource allocation to determine whether a process is delinquent for utilizing a percentage of CPU resources above a predetermined threshold percentage (par. 0006; par. 0031);

a throttling component configured to suspend a delinquent process for a variable amount of time before resuming the process to reduce the percentage of CPU resources occupied by the delinquent process (par. 0039, par. 0041; par. 0056; par. 0066); and

Austin does not specifically disclose a monitoring component configured to monitor the delinquent process to provide real-time feedback information regarding CPU resource usage by the delinquent process.

However Ma teaches a monitoring component configured to monitor the delinquent process to provide real-time feedback information regarding CPU resource usage by the delinquent process (par. 0022; par 0023; par. 0043).

16. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Ma into the method of Austin to have monitoring component provide real-time feedback information regarding CPU resource usage. The modification would have been obvious because one of the ordinary skills of the art would have modified the teaching of Austin with real-time feedback to be able to better manage the system performance management decisions.

17. As per claim 2, Austin teaches wherein the throttling component is further configured to suspend and resume an object comprising the delinquent process wherein the object comprises at least one other processes, a process group, and a process tree (par. 0033; par. 0043).

18. As per claim 41, Ma teaches means for varying the duration of suspension of the delinquent process based at least in part on information generated by the means for monitoring (par. 0066).

Austin does not specifically disclose suspension of the delinquent process based at least in part on feedback/feed-forward information generated by the means for monitoring.

However Ma teaches suspension of the delinquent process based at least in part on feedback/feed-forward information generated by the means for monitoring (par. 0022; par 0023).

19. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austin(Austin) US Patent Publication No. 2003/0126184.

20. As per claim 18, Austin does not specifically disclose the predetermined threshold percentage is at least about 1% (par. 0056; par. 0057).

21. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to chose a any value for a predetermined threshold values as the value is customizable by an administrator.

22. As per claim 19, Austin does not specifically disclose the predetermined threshold percentage is at least about 5% (par. 0056; par. 0057).

23. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to chose a any value for a predetermined threshold values as the value is customizable by an administrator.

24. As per claim 20, Austin does not specifically disclose the predetermined threshold percentage is at least about 10% (par. 0056; par. 0057).

25. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to chose a any value for a predetermined threshold values as the value is customizable by an administrator.

26. Claims 22-28, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austin (Austin) US Patent Publication No. 2003/0126184, in view of Oulu et al.(Oulu) US Patent No. 6792460.

27. As per claim 22, Austin teaches the invention substantially as claimed including a computerized method for managing process utilization of central processing unit(CPU) resources comprising(par. 0015):

determining whether a process is delinquent for occupying more than a predetermined percentage of CPU resources (par. 0006; par. 0031);

monitoring the process determined to be delinquent (par. 0006);

determining whether an exemption from CPU throttling exists for the delinquent process (par 0060; par, 0042);

Austin does not specifically disclose determining whether an exemption from monitoring exists for the process; and terminating monitoring of the delinquent process if the delinquent is exempt from CPU throttling.

However Oulu teaches determining whether an exemption from monitoring exists for the process (col 13, lines 53-67);

terminating monitoring of the process if the process is exempt from CPU throttling (col 14, lines 1-14)

28. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Oulu into the method of Austin to have process exempt from CPU throttling and terminating monitoring of the process. The modification would have been obvious because one of the ordinary skills of the art would have modified the teaching of Austin to determine and remove process from monitoring and terminating the monitoring process to be able to better utilize the monitoring system and improve system performance.

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29. As per claim 23, Austin teaches wherein the method is performed on an object if the object comprises at least one delinquent process, where the object further comprises at least one other processes, a process group, and a process tree (par. 0033; par. 0043).

30. As per claim 24, Austin teaches running the delinquent process for a fixed time period (par. 0029).

31. As per claim 25, Austin teaches suspending the delinquent process for a variable time (par. 0056; par. 0066).

32. As per claim 26, Austin teaches resuming the process after the suspension period (par. 0066, lines 18-25).

33. As per claim 27, Austin teaches determining whether the process is still delinquent after throttling by comparing the percentage of CPU resources occupied by the delinquent process after throttling to the predetermined threshold percentage (par. 0066).

34. As per claim 28, Austin teaches adjusting the duration of the suspension period if the delinquent process is still delinquent after throttling (par. 0021; par 0022; par. 0023).

35. As per claim 37, Austin teaches the predetermined threshold percentage is selectable by an administrator (par. 0056; par. 0057).

36. As per claim 39, Austin teaches performed on at least one of a terminal server, a non-terminal server a Windows server, a desktop PC, a laptop, and a handheld computing device (par. 0002).

37. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes et al.(Hayes) US Patent No. 6993681, in view of Austin(Austin) US Patent Publication No. 2003/0126184.

38. As per claim 43, Austin teaches the invention substantially as claimed including a computerized method for throttling a delinquent process that occupies more than a predetermined threshold percentage of central processing unit (CPU) resources(col 1, lines 52-64; col 6, lines 63-65), the method comprising:

determining whether a process is delinquent for occupying more than a predetermined threshold percentage of CPU resources (col 7, lines 35-38; lines 48-55);

monitoring the process determined to be delinquent for a fixed time period (col 6, lines 30-62);

suspending the delinquent process to initiate throttling of the delinquent process (col 7, lines 15-25; col 13, lines 59-67 through col 13, lines 1-19); and

resuming the delinquent process to complete throttling of the delinquent process, wherein the determining, monitoring, suspending and resuming of the process occurs independent of any

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threads associated with the process (col 6, lines 30-43; lines 63-67 through col 7, lines 1-11; lines 15-21).

Haynes does not specifically disclose monitoring the process determined to be delinquent for a fixed time period and suspending the delinquent process for a variable time period.

However Austin teaches monitoring the process determined to be delinquent for a fixed time period (par. 0058); and

suspending the delinquent process for a variable time period (par. 0039, par. 0041; par. 0056; par. 0066)

39. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Austin into the method of Hynes to monitor the delinquent process for a fixed time period. The modification would have been obvious because one of the ordinary skills of the art would have modified the teaching of Haynes to monitor the process for a fixed time period to be able to evaluate the delinquent processes.

Allowable Subject Matter

40. Claims 4-5, 9-14, and 29-36, 38 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

41. Applicant's arguments filed 06/10/2009 have been fully considered but they are not persuasive.
42. In the remarks applicant argues:
- (1) Austin fails to teach the invention as Austin monitors a thread not a process.
43. Examiner respectfully disagree with applicant:
- i. As to point (1), applicant supports his argument mentioning that monitoring a thread is not monitoring a process; a thread is not a process as a process includes multiple threads. Examiner respectfully disagrees with the applicant. The applicant does not specify the definition or what constitute process in the applicant's invention anywhere in the claimed limitation. Examiner interprets the term "process" as the well known definition known and used by the ordinary skill in the art. According to "Microsoft dictionary" page 518; a thread is a process that is part of a large process or program. According to the book "Applied Operating System Concepts" page 91 "4.1.4 Threads"; a process is a program that performs a single thread of execution. Therefore the term thread and process are interchangeable and defines the same element in an operating system unless it is defined otherwise. Accordingly Austin teaches the invention as

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claimed as it teaches monitoring CPU usage of a thread (process) and throttling the delinquent process (par. 0015).

Conclusion

44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULLAH AL KAWSAR whose telephone number is (571)270-3169. The examiner can normally be reached on 7:30am to 5:00pm, EST.

45. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng Ai T. An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

46. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

/Abdullah-Al Kawsar/
Examiner, Art Unit 2195